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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/418,791	10/15/1999	RAJESH NAIR	DGR-102J	9339

7590 08/13/2002  
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260 BEAR HILL ROAD  
WALTHAM, MA 024511018

EXAMINER

DICKENS, CHARLENE

ART UNIT	PAPER NUMBER
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2855

DATE MAILED: 08/13/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/418,791

Applicant(s)

Nair et al

Examiner

Dickens

Group Art Unit

2855

— The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address —

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- ☒ Responsive to communication(s) filed on 5/30/02
- ☒ This action is **FINAL**.
- ☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

## Disposition of Claims

- ☒ Claim(s) 1-17 is/are pending in the application.
- ☐ Of the above claim(s) is/are withdrawn from consideration.
- ☐ Claim(s) is/are allowed.
- ☒ Claim(s) 1-17 is/are rejected.
- ☐ Claim(s) is/are objected to.
- ☐ Claim(s) are subject to restriction or election requirement

## Application Papers

- ☒ The proposed drawing correction, filed on 5/30/02 is ☒ approved ☐ disapproved.
- ☐ The drawing(s) filed on is/are objected to by the Examiner
- ☐ The specification is objected to by the Examiner.
- ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119 (a)-(d)

- ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119 (a)-(d).
- ☐ All ☐ Some\* ☐ None of the:
- ☐ Certified copies of the priority documents have been received.
- ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_
- ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a))

\*Certified copies not received: \_\_\_\_\_

## Attachment(s)

- ☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). \_\_\_\_\_
- ☐ Interview Summary, PTO-413
- ☐ Notice of Reference(s) Cited, PTO-892
- ☐ Notice of Informal Patent Application, PTO-152
- ☒ Notice of Draftsperson's Patent Drawing Review, PTO-948
- ☐ Other \_\_\_\_\_

Office Action Summary

1. The proposed drawing correction and/or the proposed substitute sheets of drawings, filed on 5-30-02 have been approved by the Examiner. A proper drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The correction to the drawings will not be held in abeyance.

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vaitkus et al. (US Pat. 5,629,482) in view of Hultgren (US Pat. 4,722,611).

Vaitkus et al. discloses an air flow sensor comprising: a temperature dependent resistor device 502; a first circuit for applying a voltage to the temperature dependent resistor device until it reaches a first temperature, the first circuit including: a first reference resistance leg (20), a first variable resistance leg (502-505) including the temperature dependent resistor device, a first comparator 506 connected to both legs for determining when the temperature dependent resistor

service reaches the first temperature; a second circuit including a second reference resistance leg 402, a second variable resistance leg (401) including the temperature dependent resistor device, a second comparator 404 connected to both legs; and a processor 410 connected to both the first and second comparators. Vaitkus et al. does not disclose a time period that it takes the temperature dependent resistor device to change from a first temperature to a second temperature to determine the heat loss rate of the temperature dependent resistor device. Hultgren disclose a time period that it takes the temperature dependent resistor device to change from a first temperature to a second temperature to determine the heat loss rate of the temperature dependent resistor device (Figs. 4-7) for the purpose of providing a flow rate measuring device for sensing the relative heat transfer characteristics of a media. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have a time period that it takes the temperature dependent resistor device to change from a first temperature to a second temperature to determine the heat loss rate of the temperature dependent resistor device in Vaitkus et al. as taught by Hultgren for the purpose of providing a flow rate measuring device for sensing the relative heat transfer characteristics of a media.

4. Claims 1-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vaitkus et al. (US Pat. 5,629,482) in view of Gendron et al. (US Pat. 5,918,473).

Vaitkus et al. discloses an air flow sensor comprising: a temperature dependent resistor device 502; a first circuit for applying a voltage to the temperature dependent resistor device until it reaches a first temperature, the first circuit including: a first reference resistance leg (20), a first variable resistance leg (502-505) including the temperature dependent resistor device, a first comparator 506 connected to both legs for determining when the temperature dependent resistor service reaches the first temperature; a second circuit including a second reference resistance leg 402, a second variable resistance leg (401) including the temperature dependent resistor device, a second comparator 404 connected to both legs; and a processor 410 connected to both the first and second comparators. Vaitkus et al. does not disclose a time period that it takes the temperature dependent resistor device to change from a first temperature to a second temperature to determine the heat loss rate of the temperature dependent resistor device. Gendron et al. disclose a time period that it takes the temperature dependent resistor device to change from a first temperature to a second temperature to determine the heat loss rate of the temperature dependent resistor device (Fig. 7) for the purpose of controlling

the cooling of an object by intermittent but rapid measurement of the quenchant properties of the coolant. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have a time period that it takes the temperature dependent resistor device to change from a first temperature to a second temperature to determine the heat loss rate of the temperature dependent resistor device in Vaitkus et al. as taught by Gendron et al. for the purpose of controlling the cooling of an object by intermittent but rapid measurement of the quenchant properties of the coolant.

5. Applicants' arguments filed 5/30/02 have been fully considered but they are not persuasive. Applicants argue Hultgren and Gendron et al. are fundamentally different in structure and function than the instant invention. Specifically, applicants state Hultgren nor Gendron et al. do not teach or suggest timing the time period that it takes the temperature dependent resistor device to change from a first temperature to a second temperature in order to determine the heat loss rate of the temperature dependent resistor device. The Examiner does not agree with this argument. Hultgren teaches applying a voltage across a thermistor. Hultgren also states test temperatures ranged from 180° to 300°. Further, the reference suggests using time intervals when applying a voltage across the thermistor. Gendron et al. also suggests using time intervals when applying a

voltage across the thermistor. These suggestions would make it obvious to one of ordinary skill in the art to calculate how long it takes the temperature dependent resistor device to change from a first temperature to a second temperature in order to determine the heat loss rate of the temperature dependent resistor device. Accordingly, the references used in the rejections above clearly teach and suggest the applicants' claimed invention. **ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a). A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Dickens whose telephone number is (703) 305-7047. Any inquiry of

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a general nature or relating to the status of this application  
should be directed to the receptionist or the customer service



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representative whose telephone numbers are (703) 308-0956 or  
(703) 308-4800 respectively. The fax numbers are (703) 305-3431  
and (703) 305-3432.



cd/dickens  
August 10, 2002



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